



STATE OF MARYLAND

# DMMH

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**August 6, 2008**

## **Public Health & Emergency Preparedness Bulletin: # 2008:31** **Reporting for the week ending 08/02/08 (MMWR Week #31)**

### **CURRENT HOMELAND SECURITY THREAT LEVELS**

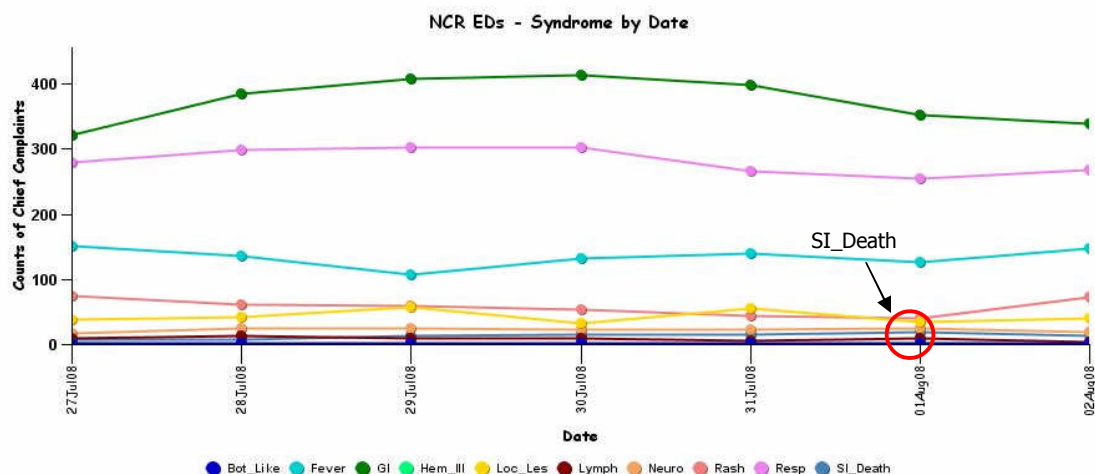
**National:** Yellow (ELEVATED) \*The threat level in the airline sector is Orange (HIGH)  
**Maryland:** Yellow (ELEVATED)

### **SYNDROMIC SURVEILLANCE REPORTS**

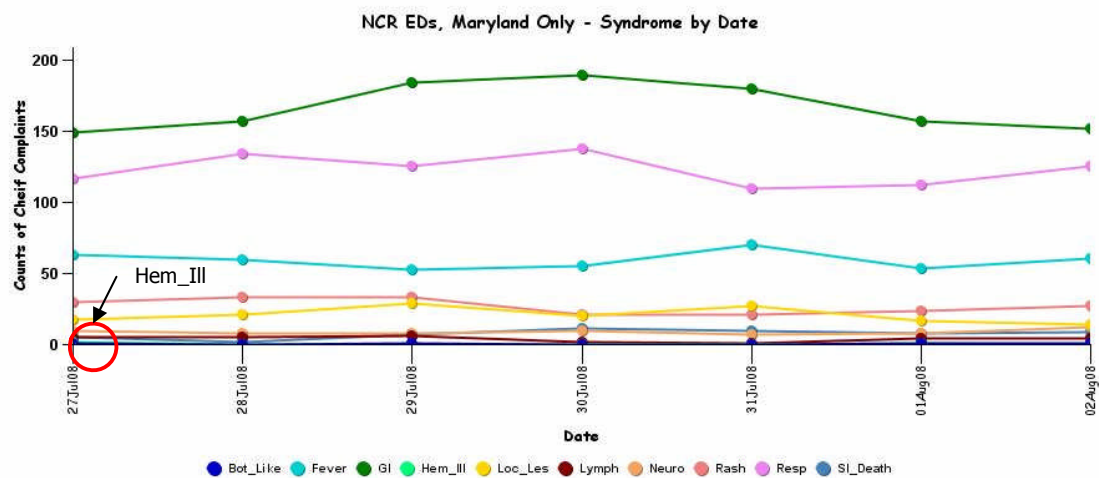
#### **ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):**

Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts only. Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

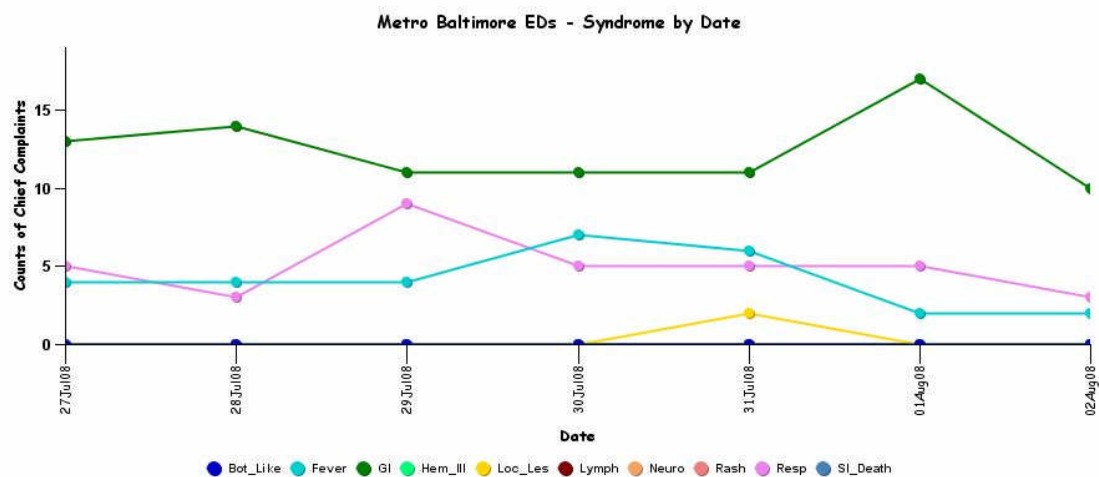
Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.



\* Includes EDs in all jurisdictions in the NCR (MD, VA, DC) under surveillance in the ESSENCE system



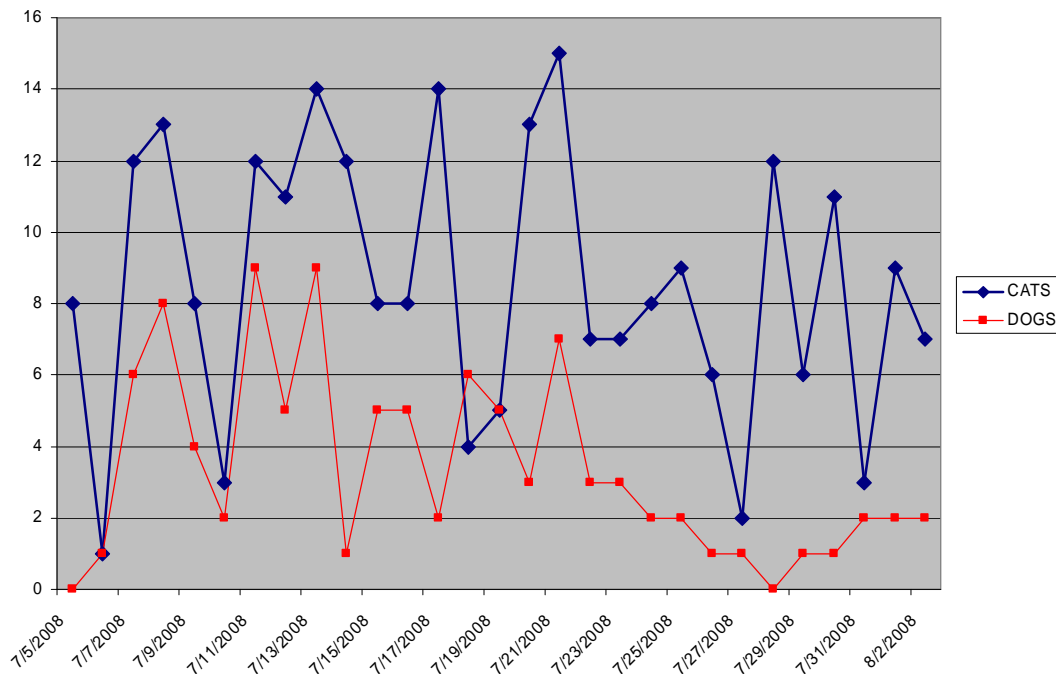
\* Includes only Maryland EDs in the NCR (Prince George's and Montgomery Counties) under surveillance in the ESSENCE system



**\*\*Note: Not all of the data were available for MMWR Week 31 due to temporary technical issues that are being addressed\*\***

\* Includes EDs in the Metro Baltimore region (Baltimore City and Baltimore County) under surveillance in the ESSENCE system.

**BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT:** No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Dead Animal Project Update: Data is provided for animal carcass surveillance 311 data.

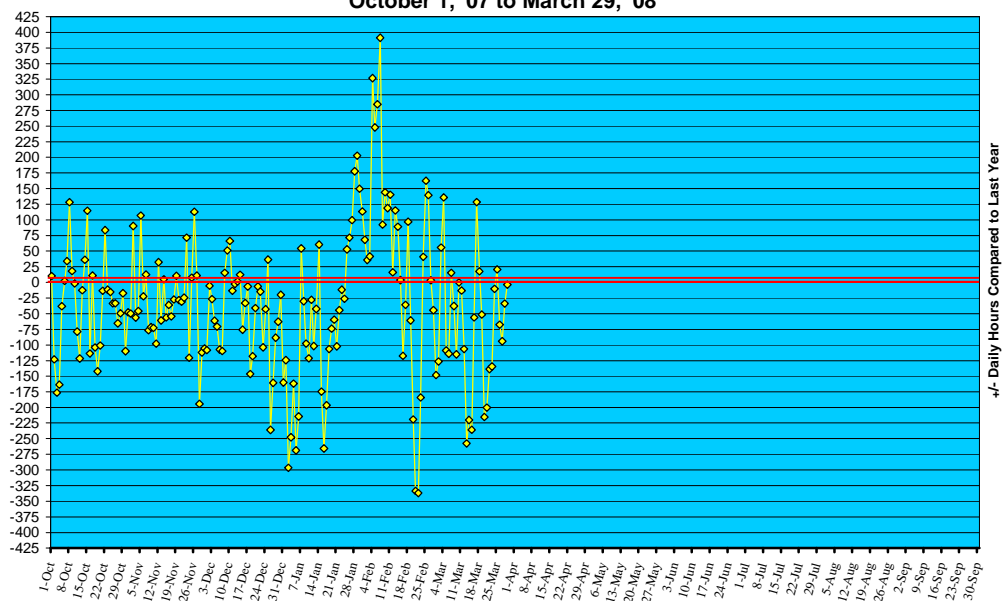


## REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

**YELLOW ALERT TIMES (ED DIVERSION):** The reporting period begins 10/01/06.

\*Note: No new data available at this time.

**Statewide Yellow Alert Comparison  
Daily Historical Deviations  
October 1, '07 to March 29, '08**



## **REVIEW OF MORTALITY REPORTS**

**Office of the Chief Medical Examiner:** OCME reports no suspicious deaths related to BT for the week.

## **MARYLAND TOXIDROMIC SURVEILLANCE**

**Poison Control Surveillance Monthly Update:** Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in June 2008 did not identify any cases of possible terrorism events.

## **REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS**

### **COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):**

<b>Meningitis:</b>	<b><u>Aseptic</u></b>	<b><u>Meningococcal</u></b>
New cases (Jul 27 – Aug 2, 2008):	22	0
Prior week (Jul 20 –26, 2008):	16	0
Week#31, 2007 (Jul 29 –Aug 4, 2007):	14	0

### **OUTBREAKS: 8 outbreaks were reported to DHMH during MMWR Week 31 (July 27-August 2, 2008):**

#### 5 Gastroenteritis outbreaks

- 1 outbreak of GASTROENTERITIS associated with a Nursing Home
- 2 outbreaks of GASTROENTERITIS associated with Camps
- 1 outbreak of GASTROENTERITIS associated with a Daycare
- 1 outbreak of GASTROENTERITIS associated with a Restaurant

#### 2 Foodborne Gastroenteritis outbreaks

- 1 outbreak of FOODBORNE GASTROENTERITIS associated with a Restaurant
- 1 outbreak of FOODBORNE GASTROENTERITIS associated with an Office

#### 1 Respiratory illness outbreak

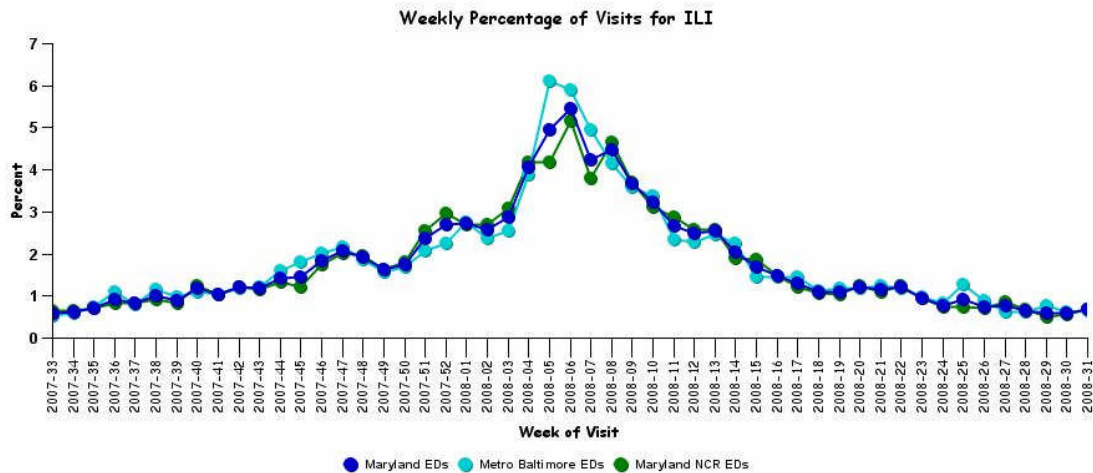
- 1 outbreak of PNEUMONIA associated with a Nursing Home

## **MARYLAND SEASONAL FLU STATUS:**

Seasonal Influenza reporting occurs October through May.

### **SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS:**

Graph shows the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. This graph does not represent confirmed influenza.



### **PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS**

**WHO Pandemic Influenza Phase:** Phase 3/4: No or very little human-to-human transmission/Small clusters with limited human-to-human transmission, suggesting that the virus is not well adapted to humans

**US Pandemic Influenza Stage:** Stage 0/1: New domestic animal outbreak in at-risk country/Suspected human outbreak overseas

\*More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at: <http://bioterrorism.dhmd.state.md.us/flu.htm>

**WHO update:** As of June 19, 2008, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 385, of which 243 have been fatal. Thus, the case fatality rate for human H5N1 is about 63%.

**AVIAN INFLUENZA, HUMAN (THAILAND):** The Public Health Ministry said on July 30, 2008, 4 people in Phichit province who were suspected of having contracted the bird flu virus have tested negative for the disease. Deputy permanent secretary Dr Pajit Warachit said he ordered the mobile rapid disease investigation unit to collect blood samples from the 4 for testing against the H5N1 strain of the virus at Nakhon Sawan's provincial Science Centre. The laboratory results found that none of the 4 had the H5N1 virus, which can be lethal to humans. Three of them are suffering from seasonal influenza, while the 4th has no flu whatsoever. The 4 people tested [included a 6-year-old child, a 10-year-old child, and 2 women aged 62 and 70. They all remain under observation in Phichit's Sam Ngam Hospital. The 6-year-old does not have the flu. The 4 reported they had come into contact with dead chickens in their village before falling ill. Three days later, they had a high fever, and it was feared they had been infected with the H5N1 strain of the bird flu virus. Pajit has asked healthcare volunteers in Sam Ngam district to monitor the symptoms of the relatives of the 3 patients with seasonal flu for the next 12 days. If any suspicious symptoms are found, they will also be sent to hospital immediately. He also urged villagers to avoid cooking food using chickens or ducks that have died suspiciously. Villagers should incinerate any such poultry in order to minimise the risk of the H5N1 virus spreading to other areas, he said.

**AVIAN INFLUENZA, Animal (S KOREA):** The 1st bird flu infection of a mammal in Korea was confirmed on Monday [July 28, 2008]. The Ministry for Food, agriculture, Forestry and Fisheries announced that the National Veterinary Research and Quarantine Service confirmed that the cause of death of a cat found dead in marshland along the Mangyeong River in Gimje, North Jeolla Province, in late April [2008] was a highly pathogenic strain of bird flu virus, H5N1. The College of Veterinary Medicine at Chungnam National University asked the national quarantine service to verify the exact cause of death. The Ministry said unlike poultry, cats do not transfer the highly pathogenic strain to humans. The virus found in the cat was the same strain that killed thousands of poultry in April. "The virus discovered in poultry in April can infect mammals, but the kind has never been found to infect humans," said Joo Yi-Seok, head of the Department of Animal Disease Control at the NVRQS. "Because cats do not have a strong enough system to reproduce the bird flu virus in their bodies, there is no risk of cats spreading the virus. There is no known case around the world of humans being infected with the virus by cats."

## **NATIONAL DISEASE REPORTS:**

**ANTHRAX, BISON (MONTANA):** An outbreak of the infectious disease anthrax has killed 25 domestic bison on Ted Turner's Flying D Ranch near the mouth of the Gallatin Canyon, Montana Department of Livestock officials said Wednesday [July 30, 2008]. "Laboratory tests confirmed anthrax late this morning," state veterinarian Dr. Marty Zaluski said. "The outbreak has been contained to a single, fully enclosed pasture, and we are aggressively addressing the situation with full cooperation of the landowner." The affected area has been quarantined. "Anthrax can pop up any place at any time, but this outbreak was in a remote, well-contained area," Zaluski said. "We're fortunate that the landowner recognized the disease early and took the appropriate action." Turner, the media mogul who raises domestic bison on the ranch in the foothills of the Spanish Peaks, said Wednesday he and his ranch managers were working with state livestock officials "and following their protocol guidelines to control the disease." "I'm not the 1st rancher to deal with an anthrax outbreak, and certainly not the last," he said. "Other outbreaks have been successfully managed throughout the U.S. and Canada, and I am confident we will do the same." Montana has not had a reported case of human anthrax since 1961. "Vaccination for livestock in the area is always an option, but we're not recommending it at this time," Zaluski said. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) \*Non-suspect Case

**PLAGUE, WILDLIFE (COLORADO):** A dead rabbit that tested positive for plague was found near Paradise Drive and Platteville Boulevard in Pueblo West, Colorado. Pueblo City-County Health Department crews on Friday [July 25, 2008] dusted prairie dog holes in north Pueblo West to kill fleas that can carry plague. Plague was confirmed following tests on a dead rabbit found by a resident recently in the area of Paradise Drive and Platteville Boulevard, according to health department spokeswoman Mary Davis. "All residents in the area have been alerted to that and employees are dusting prairie dog holes in that area right now," Davis said Friday. Plague is relatively common in rabbits and rodents. It can infect humans and domestic animals if they are bitten by a flea that has had contact with an infected mouse, rabbit, prairie dog or other wild animal. That's why "everyone should be aware of the risk, no matter where they live," Davis said. "Everyone should always be aware of the guidelines for protecting themselves and their pets." Pets that spend time outdoors, especially in rural areas, should be treated regularly for fleas and should be kept on a leash in areas where rodents and other potential plague carriers are known to live. Homeowners should clear their properties of plant materials, lumber or debris that provide attractive cover for rabbits, mice and rats. Known rodent habitats should be treated with flea powder or other insecticides. When pending time in rural areas likely to harbor rabbits, prairie dogs and rodents, wearing insect repellent and long pants, tucked into socks, can prevent flea bites. Humans should avoid all contact with wild animals and rodents that are known to be potential carriers of plague, and should never handle a sick or dead animal. Signs of plague infection include a sudden fever, fatigue and general malaise. The disease is treatable in humans and animals but is more easily treated if caught early. (Plague is listed in Category A on the CDC list of Critical Biological Agents) \*Non-suspect Case

**MULTISTATE OUTBREAK OF SALMONELLA SAINTPAUL INFECTIONS:** Since April, 1329 persons infected with *Salmonella* Saintpaul with the same genetic fingerprint have been identified in 43 states, the District of Columbia, and Canada. As of August 1, 2008, there are 38 persons identified as ill in Maryland. An FDA laboratory detected the outbreak strain *Salmonella* Saintpaul in a sample of a serrano pepper and an agricultural water sample collected on a farm in Mexico that supplied peppers to the distribution center in McAllen, Texas. Results from the FDA laboratory therefore confirm that this outbreak was caused by at least two produce items, raw jalapeño and raw serrano peppers. Although tomatoes currently on the market are safe, raw tomatoes consumed early in the outbreak are still under investigation. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) \*Non-suspect case  
See below for other resources.

## **INTERNATIONAL DISEASE REPORTS:**

**Q FEVER (NETHERLANDS):** Q fever is a worldwide zoonosis caused by the bacterium *Coxiella burnetii* which is common in a wide range of wild and domestic animals. Cattle and small ruminants, in particular sheep and goats, have been associated with large human outbreaks. Humans become infected primarily by inhaling aerosols that are contaminated by *C. burnetii*. Most infections remain asymptomatic but in about 40 percent lead to a febrile disease, pneumonia and/or hepatitis. Chronic infections, mainly endocarditis, are observed in 3 to 5 percent of cases, with an increased risk for pregnant women and persons with heart valve disorders or impaired immunity. Q fever in pregnancy, whether symptomatic or asymptomatic, may also result in adverse pregnancy outcomes (1). Q fever in humans is a notifiable disease in The Netherlands. The notification criteria for a confirmed case is a positive serology defined by immunofluorescence assay (IFA) test or a *C. burnetii* complement fixation test (2). Also clinical patients diagnosed by PCR are considered as confirmed cases. Between 1997 and 2006, Q fever was notified rarely with an average of 11 (range 5-16) cases annually (3). In 2007, we reported in this journal the 1st community outbreak of Q fever in the south of The Netherlands (4). (Q fever is listed in Category B on the CDC list of Critical Biological Agents) \*Non-suspect Case

**JAPANESE ENCEPHALITIS (INDIA):** Encephalitis, a fatal disease, which causes the inflammation of the brain, has taken 88 lives in Gorakhpur. In the past few months, almost 372 patients have been admitted in Baba Raghav Das (BRD) Hospital out of which 88 have lost their lives because of this dreadful disease. Most of the patients fall in the age group of 6 months to 12 years. The patients admitted in the hospital are mostly virus infected. "Presently, the cases that are coming in Gorakhpur are mostly virus infected cases. The most common viruses are enterovirus and coxsackievirus. The symptoms are almost same, but the disease is fatal which leaves the person paralysed even if cured. Near 10 percent of kids infected by this disease are mentally or physically crippled," said Sunil Kumar Arya, a doctor of the BRD Hospital. The

symptoms are very common and the residents fail to recognise the fact that a mild fever can prove fatal. "My child had fever initially, then he started vomiting, then there was swelling. Now, the condition is better, but the fever is coming frequently," said a patient's mother. According to patients, almost 4-5 children lose their lives due to this deadly disease. "Daily 8-10 kids are infected with brain fever are coming here and daily 4-5 kids are losing their lives," said a patient's father. This disease is almost endemic to the region and immediate measures are required to restrain the spread of the infection any further. Encephalitis is commonly known as brain fever. Japanese encephalitis virus causes the disease and the virus is transmitted to humans by culicine mosquitoes. (Viral Encephalitis is listed in Category B on the CDC list of Critical Biological Agents) \*Non-suspect case

**SALMONELLOSIS, SEROTYPE ENTERITIDIS (CANADA):** A team of 50 health experts is trying to find the cause of a salmonella outbreak in British Columbia that [may have] left thousands of people sick with mild to severe symptoms of diarrhea, vomiting, and fever. "No one has died and as far as I know everyone has recovered, but there have been some hospitalizations," Eleni Galanis, an epidemiologist with the BC Centre for Disease Control, said yesterday [28 Jul 2008]. So far the investigators, drawn from several health authorities, have not found the source of the disease, which is thought to be a tainted food item distributed widely to restaurants and stores in the Lower Mainland. Only 64 people have tested positive for the infection so far, but health officials say the actual number of sick people is far greater. An alert was triggered several weeks ago, when an unusual number of cases of salmonellosis was confirmed in stool samples taken from people who came to their doctors with high fevers, vomiting, and diarrhea. Since the end of June 2008, experts from the BC Centre for Disease Control and several other health agencies have been investigating the cause. "It's called *Salmonella* [enterica\_ serotype] Enteritidis," said Dr. Galanis, naming the strain identified in the 64 confirmed patients. "Enteritidis is usually associated with poultry, eggs, or produce contaminated with one of those 2 sources. ... We're investigating all of those [possibilities] and so far we haven't found a source. "We're pretty convinced it's a food item. It's probably a food that was distributed widely across the Lower Mainland, both to restaurants and to some grocery stores because there is no one place where this food was served." (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) \*Non-suspect case

**PLAGUE, WILDLIFE, HUMAN EXPOSURE (RUSSIA):** A 13-year-old Siberian boy has been hospitalized after catching a plague-infected ground squirrel and bringing it home, Russia's top sanitary official said on Thursday. The boy, living in a remote shepherds' community in south Siberia's Tuva Republic, brought the rodent home in his hat. His grandfather immediately killed the animal, and called a doctor. The teenager "came into immediate contact with a long-tailed ground squirrel [*Spermophilus undulatus*] infected with the plague. His state of health is satisfactory. He is undergoing prophylactic treatment," Gennady Onishchenko told RIA Novosti. The area has been thoroughly disinfected, and medics from the regional plague prevention center are carrying out anti-epidemic measures in the area. Plague, caused by the *Yersinia pestis* bacterium, can be transmitted from rodents to humans via fleas. Bubonic plague is now extremely rare in industrialized countries, and can be treated with antibiotics. (Plague is listed in Category A on the CDC list of Critical Biological Agents) \*Non-suspect Case

**CHIKUNGUNYA (MALAYSIA):** The Chikungunya disease [virus], which is believed to have infected the people of Kampung Rasau [in Slim River, Perak], has spread to at least 5 other nearby villages, Slim assemblyman Datuk Mohd Khusairi Abdul Talib said. Khusairi, who visited some of the villagers seeking treatment for prolonged fever and joint pains at the health polyclinic here, said he was concerned about the feedback he was getting from villagers. "From what I know, it started at Kampung Rasau near here," he said Monday [July 28, 2008] after visiting one of the patients warded at the hospital. "Now I am getting feedback that it has spread to nearby villages such as Ulu Slim, Slim Village, Bandar Baru Slim River, Kuala Slim, Kampung Bantang, and Trolak" he added. Khusairi, who got a briefing about the disease from a doctor at the polyclinic, said whole families were reporting that they were down with prolonged fever, rashes, and joint pains. "This is worrying and villagers from nearby kampung (village) are now complaining of having the same symptoms," he added. He said he hoped more doctors could be assigned to the health polyclinic to help out for the time being. Last week [July 21-27, 2008], the polyclinic was treating between 25 and 30 patients with the same symptoms, he said, adding that this week, the number of patients was on the rise. He also advised the people to get rid of mosquito-breeding grounds in the area. Khusairi said he had been informed that the health authorities had been fogging the area to rid the place of mosquitoes. The Health Ministry's disease control director Datuk Dr Hasan Abdul Rahman had reportedly confirmed that the ailment was the mosquito-borne chikungunya virus. (Emerging Infectious Diseases are listed in Category C on the CDC list of Critical Biological Agents) \*Non-suspect Case

**BOTULISM (RUSSIA):** On Friday [July 25, 2008], 9 residents of the village of Ivanovskoye were admitted to a hospital with a preliminary diagnosis of botulism. There are 2 children among them. A 22-year-old person died. Omul [fish] was bought privately and only the victims ate it. (Botulism is listed in Category A on the CDC list of Critical Biological Agents) \*Non-suspect Case

#### **OTHER RESOURCES AND ARTICLES OF INTEREST:**

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://bioterrorism.dhmd.state.md.us/>

#### **Investigation of Outbreak of Infections Caused by *Salmonella Saintpaul***

Updated information on the recent outbreak of human *Salmonella* infections associated with consumption of raw tomatoes. (<http://www.cdc.gov/salmonella/saintpaul/>)

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**NOTE:** This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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